

SEQUENCE LISTING

<110> Turley, Eva A.
Cruz, Tony F.

<120> COMPOSITIONS AND METHODS FOR TREATING
CELLULAR RESPONSE TO INJURY AND OTHER PROLIFERATING CELL
DISORDERS REGULATED BY HYALADHERIN AND HYALURONANS

<130> 910130.401C1

<140> US

<141> 2000-10-05

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<223> Peptide that binds a hyalauronan

<221> VARIANT

<222> (1)...(5)

<223> Xaa = any amino acid

<221> HELIX

<222> (1)...(5)

<223> Alpha-helix

<221> VARIANT

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<223> Xaa = Lysine or Arginine

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09685010-100500

<223> Xaa = any amino acid

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<223> Xaa = Lysine or Arginine

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<223> Xaa = Hydrophobic or neutral amino acid consisting of I,L,V,Q,S

<221> VARIANT

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<223> Xaa = Lysine or Arginine

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<223> Xaa = Lysine or Arginine

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<223> Xaa = Lysine or Arginine

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09685040-100500

<223> Xaa = Hydrophobic or neutral amino acid consisting
of I,L,V,Q,S

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<223> Xaa = Hydrophobic or neutral amino acid consisting
of I,L,V,Q,S

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<223> Xaa = Lysine or Arginine

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<223> Xaa = Lysine or Arginine

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of I,L,V,Q,S

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<223> Xaa = Lysine or Arginine

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 of I,L,V,Q,S

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<221> HELIX
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 Met Met Thr Val Leu Lys Arg
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Met Met Thr Val Leu Lys Val Lys Val Lys Arg Lys
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<400> 10

Met Met Thr Val Leu Lys Val Arg Lys
1 5

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<213> Homo sapiens

<400> 11

Lys Leu Gln Ala Thr Gln Lys Pro Leu Thr Glu Ser Lys
1 5 10

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<213> Homo sapiens

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Val Ser Ile Glu Lys Glu Lys Ile Asp Glu Lys Ser
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<223> Peptide developed based upon the TAM domain.
(Transient Activator of MAP kinases)

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Val Ser Xaa Lys Glu Lys
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1 5 10 15
Val Gln Leu Glu Gly Lys Leu
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<213> Mus musculus

09635040 100500

<400> 15

Lys Leu Gln Ala Thr Gln Lys Asp Leu Thr Glu Ser Lys Gly
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<210> 16

<211> 25

<212> PRT

<213> Mus musculus

<400> 16

Val Ser Ile Glu Lys Glu Lys Ile Asp Glu Lys Cys Glu Thr Glu Lys
1 5 10 15
Leu Leu Glu Tyr Ile Gln Glu Ile Ser
20 25

<210> 17

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<213> Mus musculus

<400> 17

Val Ser Ile Glu Lys Glu Lys Ile Asp Glu Lys Cys
1 5 10

<210> 18

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<213> Homo sapien

<400> 18

Leu Lys Ser Lys Phe Ser Glu Asn Gly Asn Gln Lys Asn Leu
1 5 10

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<213> Homo Sapiens

<400> 19

Lys Leu Gln Val Thr Gln Arg Ser Leu Glu Glu Gln Lys Gly
1 5 10

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<213> Mus musculus

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Leu Lys Ala Lys Phe Ser Glu Asp Gly His Gln Lys Asn Met
1 5 10

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<400> 21
 Gln Glu Arg Gly Thr Gln Asp Lys Arg Ile Gln Asp Met Glu
 1 5 10

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 Gly Thr Leu Lys Leu Asp Lys Leu Gly Ser Gln Ala Asp Thr Gly Gln
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 Lys Glu Leu Lys Gln
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<400> 23
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 1 5 10 15
 Arg Ser Thr Leu
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Cys Ser Thr Met Met Ser Arg Ser His Lys Thr Arg Ser His His Val
1 5 10 15

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<211> 9

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<223> Peptide that binds a hyalauronan

<400> 27

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<223> Xaa = Any amino acid other than an acidic amino acid

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<222> (9)...(9)

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<211> 11

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<222> (3)...(4)

<223> Xaa = any amino acid other than an acidic amino acid

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<222> (5)...(7)

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<223> Xaa = any amino acid other than an acidic amino acid

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<223> Xaa = any basic amino acid

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<223> Peptide composition that binds a hyalauronan

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Lys	Gln	Lys	Ile	Lys	His	Val	Val	Lys	Leu	Lys
1				5						10

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<223> Peptide composition that binds a hyalauronan

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Lys	Leu	Lys	Ser	Gln	Leu	Val	Lys	Arg	Lys
1				5					10

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<210> 32
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<400> 32
 Arg Tyr Pro Ile Ser Arg Pro Arg Lys Arg
 1 5 10

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 1 5 10

<210> 35
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 Arg Arg Arg Cys Gly Gln Lys Lys Lys
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<210> 36
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<223> Peptide composition that binds a hyalauronan

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Arg Gly Thr Arg Ser Gly Ser Thr Arg
1 5

<210> 37

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<223> Peptide composition that binds a hyalauronan

<400> 37

Arg Arg Arg Lys Lys Ile Gln Gly Arg Ser Lys Arg
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<223> Peptide composition that binds a hyalauronan

<400> 38

Arg Lys Ser Tyr Gly Lys Tyr Gln Gly Arg
1 5 10

<210> 39

<211> 9

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<223> Peptide composition that binds a hyalauronan

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Lys Val Gly Lys Ser Pro Pro Val Arg
1 5

<210> 40

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<223> Peptide composition that binds a hyalauronan

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Lys Thr Phe Gly Lys Met Lys Pro Arg
1 5

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 Lys Val Gly Lys Ser Pro Pro Val Arg
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 His Arg Glu Ala Arg Ser Gly Lys Tyr Lys
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 <213> Homo sapien

 <220>

05635040 " 100500

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Glu	Phe	Ala	Ala	Ala	Ser	Thr	Asn	Lys	Pro	Pro	Ala	Val	Ser	Pro	Gly	
1				5					10					15		

gtg	gtc	tcc	cca	acc	ttt	gaa	ctt	aca	aat	ctt	cta	aat	cat	cct	gac	96
Val	Val	Ser	Pro	Thr	Phe	Glu	Leu	Thr	Asn	Leu	Leu	Asn	His	Pro	Asp	
			20					25					30			

cat	tat	gta	gaa	aca	gag	aac	att	cag	cat	ctc	aca	gac	ccg	gct	cta	144
His	Tyr	Val	Glu	Thr	Glu	Asn	Ile	Gln	His	Leu	Thr	Asp	Pro	Ala	Leu	
		35					40					45				

gca	cat	gtg	gat	aga	ata	agc	caa	gcc	cgg	aaa	ctg	agt	atg	gga	tct	192
Ala	His	Val	Asp	Arg	Ile	Ser	Gln	Ala	Arg	Lys	Leu	Ser	Met	Gly	Ser	
	50					55					60					

gat	gat	gct	gcc	tac	aca	caa	gct	ctg	ctg	gtg	cac	cag	aag	gcc	agg	240
Asp	Asp	Ala	Ala	Tyr	Thr	Gln	Ala	Leu	Leu	Val	His	Gln	Lys	Ala	Arg	
65					70					75					80	

atg	gaa	cgg	ctt	caa	aga	gag	ctc	gag	atg	caa	aag	aaa	aag	ctg	gat	288
Met	Glu	Arg	Leu	Gln	Arg	Glu	Leu	Glu	Met	Gln	Lys	Lys	Lys	Leu	Asp	
			85					90						95		

aaa	ctc	aaa	tct	gag	gtc	aat	gag	atg	gaa	aat	aat	cta	act	cga	agg	336
Lys	Leu	Lys	Ser	Glu	Val	Asn	Glu	Met	Glu	Asn	Asn	Leu	Thr	Arg	Arg	
			100					105					110			

cgc	ctg	aag	aga	tca	aat	tcc	att	tcc	cag	ata	ccg	tca	ctc	gaa	gaa	384
Arg	Leu	Lys	Arg	Ser	Asn	Ser	Ile	Ser	Gln	Ile	Pro	Ser	Leu	Glu	Glu	
		115					120					125				

atg	cag	cag	ttg	aga	agt	tgt	aat	aga	caa	ctc	cag	att	gac	att	gac	432
Met	Gln	Gln	Leu	Arg	Ser	Cys	Asn	Arg	Gln	Leu	Gln	Ile	Asp	Ile	Asp	
	130					135					140					

ttt	gac	tgc	tta	acc	aaa	gaa	att	gca	tct	ttt	tca	agc	ccg	agg	acc	480
Phe	Asp	Cys	Leu	Thr	Lys	Glu	Ile	Ala	Ser	Phe	Ser	Ser	Pro	Arg	Thr	
145					150					155					160	

aca	ttt	taacccccagc	gctattcata	acttttatga	caatattgga	ttttagggcc	536
Thr	Phe						

ctgtgccacc	aaaacccaaa	gatcaaaggt	ccaccatcaa	aggtcgacgc	gg	588
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<213> Homo sapien

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<400> 46

Glu	Phe	Ala	Ala	Ala	Ser	Thr	Asn	Lys	Pro	Pro	Ala	Val	Ser	Pro	Gly
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Val	Val	Ser	Pro	Thr	Phe	Glu	Leu	Thr	Asn	Leu	Leu	Asn	His	Pro	Asp
			20					25					30		
His	Tyr	Val	Glu	Thr	Glu	Asn	Ile	Gln	His	Leu	Thr	Asp	Pro	Ala	Leu
		35					40					45			
Ala	His	Val	Asp	Arg	Ile	Ser	Gln	Ala	Arg	Lys	Leu	Ser	Met	Gly	Ser
		50				55					60				
Asp	Asp	Ala	Ala	Tyr	Thr	Gln	Ala	Leu	Leu	Val	His	Gln	Lys	Ala	Arg
65					70					75					80
Met	Glu	Arg	Leu	Gln	Arg	Glu	Leu	Glu	Met	Gln	Lys	Lys	Lys	Leu	Asp
				85					90					95	
Lys	Leu	Lys	Ser	Glu	Val	Asn	Glu	Met	Glu	Asn	Asn	Leu	Thr	Arg	Arg
			100					105					110		
Arg	Leu	Lys	Arg	Ser	Asn	Ser	Ile	Ser	Gln	Ile	Pro	Ser	Leu	Glu	Glu
		115					120						125		
Met	Gln	Gln	Leu	Arg	Ser	Cys	Asn	Arg	Gln	Leu	Gln	Ile	Asp	Ile	Asp
	130					135					140				
Phe	Asp	Cys	Leu	Thr	Lys	Glu	Ile	Ala	Ser	Phe	Ser	Ser	Pro	Arg	Thr
145					150					155					160
Thr	Phe														

<210> 47

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<212> PRT

<213> Homo sapiens

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Met	Ser	Phe	Pro	Lys	Ala	Pro	Leu	Lys	Arg	Phe	Asn	Asp	Pro	Ser	Gly
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Cys	Ala	Pro	Ser	Pro	Gly	Ala	Tyr	Asp	Val	Lys	Thr	Leu	Glu	Val	Leu
			20					25					30		
Lys	Gly	Pro	Val	Ser	Phe	Gln	Lys	Ser	Gln	Arg	Phe	Lys	Gln	Gln	Lys
		35					40					45			
Glu	Ser	Lys	Gln	Asn	Leu	Asn	Val	Asp	Lys	Asp	Thr	Thr	Leu	Pro	Ala
		50				55					60				
Ser	Ala	Arg	Lys	Val	Lys	Ser	Ser	Glu	Ser	Lys	Lys	Glu	Ser	Gln	Lys
65					70					75					80
Asn	Asp	Lys	Asp	Leu	Lys	Ile	Leu	Glu	Lys	Glu	Ile	Arg	Val	Leu	Leu
				85					90					95	
Gln	Glu	Arg	Gly	Ala	Gln	Asp	Arg	Arg	Ile	Gln	Asp	Leu	Glu	Thr	Glu
			100					105					110		
Leu	Glu	Lys	Met	Glu	Ala	Arg	Leu	Asn	Ala	Ala	Leu	Arg	Glu	Lys	Thr
		115					120					125			
Ser	Leu	Ser	Ala	Asn	Asn	Ala	Thr	Leu	Glu	Lys	Gln	Leu	Ile	Glu	Leu
	130					135					140				
Thr	Arg	Thr	Asn	Glu	Leu	Lys	Ser	Lys	Phe	Ser	Glu	Asn	Gly	Asn	
145				150					155						160
Gln	Lys	Asn	Leu	Arg	Ile	Leu	Ser	Leu	Glu	Leu	Met	Lys	Leu	Arg	Asn
				165					170					175	
Lys	Arg	Glu	Thr	Lys	Met	Arg	Gly	Met	Met	Ala	Lys	Gln	Glu	Gly	Met

0055010.100500

[illegible]

610		615		620
Ser Tyr Ala Lys Leu	Leu Gly His Gln Asn Leu	Lys Gln Lys Ile Lys		
625	630	635		640
His Val Val Lys Leu	Lys Asp Glu Asn Ser Gln	Leu Lys Ser Glu Val		
	645	650		655
Ser Lys Leu Arg Cys	Gln Leu Ala Lys Lys	Lys Gln Ser Glu Thr Lys		
	660	665		670
Leu Gln Glu Glu Leu	Asn Lys Val Leu Gly Ile	Lys His Phe Asp Pro		
	675	680		685
Ser Lys Ala Phe His	His Glu Ser Lys Glu Asn	Phe Ala Leu Lys Thr		
	690	695		700
Pro Leu Lys Glu Gly	Asn Thr Asn Cys Tyr Arg	Ala Pro Met Glu Cys		
705	710	715		720
Gln Glu Ser Trp Lys				
	725			

<210> 48

<211> 631

<212> PRT

<213> Mus musculus

mouse

<400> 48

Met Arg Ala Leu Ser	Leu Glu Leu Met	Lys Leu Arg Asn	Lys Arg Glu
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Thr Lys Met Arg Ser	Met Met Val Lys	Gln Glu Gly Met	Glu Leu Lys
	20	25	30
Leu Gln Ala Thr Gln	Lys Asp Leu Thr	Glu Ser Lys Gly	Lys Ile Val
	35	40	45
Gln Leu Glu Gly Lys	Leu Val Ser Ile	Glu Lys Glu Lys	Ile Asp Glu
	50	55	60
Lys Cys Glu Thr Glu	Lys Leu Leu Glu	Tyr Ile Gln Glu	Ile Ser Cys
	65	70	75
Ala Ser Asp Gln Val	Glu Lys Cys Lys	Val Asp Ile Ala	Gln Leu Glu
	85	90	95
Glu Asp Leu Lys Glu	Lys Asp Arg Glu	Ile Leu Ser Leu	Lys Gln Ser
	100	105	110
Leu Glu Glu Asn Ile	Thr Phe Ser Lys	Gln Ile Glu Asp	Leu Thr Val
	115	120	125
Lys Cys Gln Leu Leu	Glu Thr Glu Arg	Asp Asn Leu Val	Ser Lys Asp
	130	135	140
Arg Glu Arg Ala Glu	Thr Leu Ser Ala	Glu Met Gln Ile	Leu Thr Glu
	145	150	155
Arg Leu Ala Leu Glu	Arg Gln Glu Tyr	Glu Lys Leu Gln	Gln Lys Glu
	165	170	175
Leu Gln Ser Gln Ser	Leu Leu Gln Gln	Glu Lys Glu Leu	Ser Ala Arg
	180	185	190
Leu Gln Gln Gln Leu	Cys Ser Phe Gln	Glu Glu Met Thr	Ser Glu Lys
	195	200	205
Asn Val Phe Lys Glu	Glu Leu Lys Leu	Ala Leu Ala Glu	Leu Asp Ala
	210	215	220
Val Gln Gln Lys Glu	Glu Gln Ser Glu	Arg Leu Val Lys	Gln Leu Glu
	225	230	235
Glu Glu Arg Lys Ser	Thr Ala Glu Gln	Leu Thr Arg Leu	Asp Asn Leu
	245	250	255

05655040.100500

Leu Arg Glu Lys Glu Val Glu Leu Glu Lys His Ile Ala Ala His Ala
 260 265 270
 Gln Ala Ile Leu Ile Ala Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser
 275 280 285
 Leu Arg Asp Val Thr Ala Gln Leu Glu Ser Val Gln Glu Lys Tyr Asn
 290 295 300
 Asp Thr Ala Gln Ser Leu Arg Asp Val Thr Ala Gln Leu Glu Ser Glu
 305 310 315 320
 Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser Leu Arg Asp Val Thr Ala
 325 330 335
 Gln Leu Glu Ser Glu Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser Leu
 340 345 350
 Arg Asp Val Thr Ala Gln Leu Glu Ser Val Gln Glu Lys Tyr Asn Asp
 355 360 365
 Thr Ala Gln Ser Leu Arg Asp Val Ser Ala Gln Leu Glu Ser Tyr Lys
 370 375 380
 Ser Ser Thr Leu Lys Glu Ile Glu Asp Leu Lys Leu Glu Asn Leu Thr
 385 390 395 400
 Leu Gln Glu Lys Val Ala Met Ala Glu Lys Ser Val Glu Asp Val Gln
 405 410 415
 Gln Gln Ile Leu Thr Ala Glu Ser Thr Asn Gln Glu Tyr Ala Arg Met
 420 425 430
 Val Gln Asp Leu Gln Asn Arg Ser Thr Leu Lys Glu Glu Glu Ile Lys
 435 440 445
 Glu Ile Thr Ser Ser Phe Leu Glu Lys Ile Thr Asp Leu Lys Asn Gln
 450 455 460
 Leu Arg Gln Gln Asp Glu Asp Phe Arg Lys Gln Leu Glu Glu Lys Gly
 465 470 475 480
 Lys Arg Thr Ala Glu Lys Glu Asn Val Met Thr Glu Leu Thr Met Glu
 485 490 495
 Ile Asn Lys Trp Arg Leu Leu Tyr Glu Glu Leu Tyr Glu Lys Thr Lys
 500 505 510
 Pro Phe Gln Gln Gln Leu Asp Ala Phe Glu Ala Glu Lys Gln Ala Leu
 515 520 525
 Leu Asn Glu His Gly Ala Thr Gln Glu Gln Leu Asn Lys Ile Arg Asp
 530 535 540
 Ser Tyr Ala Gln Leu Leu Gly His Gln Asn Leu Lys Gln Lys Ile Lys
 545 550 555 560
 His Val Val Lys Leu Lys Asp Glu Asn Ser Gln Leu Lys Ser Glu Val
 565 570 575
 Ser Lys Leu Arg Ser Gln Leu Val Lys Arg Lys Gln Asn Glu Leu Arg
 580 585 590
 Leu Gln Gly Glu Leu Asp Lys Ala Leu Gly Ile Arg His Phe Asp Pro
 595 600 605
 Ser Lys Ala Phe Cys His Ala Ser Lys Glu Asn Phe Thr Pro Leu Lys
 610 615 620
 Glu Gly Asn Pro Asn Cys Cys
 625 630

<210> 49

<211> 11

<212> PRT

<213> Homo sapien

05685010 100500

<400> 49

Val Ser Ile Glu Lys Glu Lys Ile Asp Glu Lys
1 5 10

<210> 50

<211> 21

<212> PRT

<213> Unknown

<220>

<223> Peptide used in competition binding assay

<400> 50

Gln Glu Lys Tyr Asn Asp Thr Ala Gln Ser Leu Arg Asp Val Thr Ala
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Gln Leu Glu Ser Val
20

<210> 51

<211> 32

<212> PRT

<213> Unknown

<220>

<223> Peptide used in competition binding assay

<400> 51

Lys Gln Lys Ile Lys His Val Val Lys Leu Lys Asp Glu Asn Ser Gln
1 5 10 15
Leu Lys Ser Glu Val Ser Lys Leu Arg Ser Gln Leu Val Lys Arg Lys
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<210> 52

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR amplication of collagen I

<400> 52

cgatgtcgct atccagctga

20

<210> 53

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR amplication of collagen III

<400> 53

atcagtcagc catctaccac c

21

0055010 100500

<220>
<223> Peptide that binds a hyalauronan

<400> 58

Arg Gly Gly Gly Gly Gly Gly Arg
1 5

<210> 59

<211> 9

<212> PRT

<213> Homo sapien

<400> 59

Lys Leu Arg Ser Gln Leu Val Lys Arg
1 5

<210> 60

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<212> PRT

<213> Homo sapien

<400> 60

Lys Gln Lys Ile Lys His Val Val Lys
1 5

<210> 61

<211> 9

<212> PRT

<213> Homo sapien

<400> 61

Arg Ser His Lys Thr Arg Ser His His
1 5

<210> 62

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<212> PRT

<213> Homo sapien

<400> 62

Arg Pro His Phe His Lys Arg
1 5

<210> 63

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<212> PRT

<213> Homo sapien

<400> 63

Arg Lys Ile Gln Lys His Lys Thr Ile Pro Lys
1 5 10

<210> 64

<211> 9

<212> PRT

<213> Homo sapiens

00685040 100500

<220>

<223> Peptide that binds a hyalauronan

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Ser	Thr	Met	Met	Ser	Arg	Ser	His	Lys	Thr	Arg	Ser	His	His	Val
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<210> 71

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide that binds a hyalauronan

<400> 71

Cys	Ser	Thr	Met	Met	Ser	Arg	Ser	His	Lys	Thr	Arg	Ser	His	His	Val
1				5					10				15		
Cys	Ser	Thr	Met	Met	Ser	Arg	Ser	His	Lys	Thr	Arg	Ser	His	His	Val
			20					25					30		

<210> 72

<211> 12

<212> PRT

<213> Homo sapien

<400> 72

Gly	Ala	His	Trp	Gln	Phe	Asn	Ala	Leu	Thr	Val	Arg
1				5					10		

005685040-100500